

KIET SCHOOL OF PHARMACY

Minutes of Meeting held on 25th November 2024 in KSOP Department


Agenda:

Discussion and approval of CO statements, CO-PO mapping and target benchmark for M. Pharm (Pharmaceutics, Pharmacology, Pharm. Quality Assurance) 1st semester for session 2024-25 Odd semester

Time: 2:00 P.M.

Chair: Dr. K. Nagarajan (Principal-KSOP)


BoS Members Present:

1. Dr. N.G. Raghavendra Rao 

2. Dr. Roma Ghai 


3. Dr. Richa Goel 

4. Dr. Shardendu Kumar Mishra 


5. Dr. Snigdha Bhardwaj 

Topics Discussed:

1. The BoS members reviewed and approved the CO statements and CO-PO mapping per IQAC requirements for the 2024-25 Odd semester session.
2. As per the discussion on the IQAC audit report, BoS decided to keep the same target benchmark (internal and external) for the odd semester 2023-24 for the odd semester for session 2024-25.
3. The CO statements, CO-PO mapping, and target benchmarks were handed over to the O.E team. for approval by higher authorities. Afterwards, they will be uploaded on the KIET MsERP Portal through the respective CO-coordinator.


Prof. (Dr.) K. Nagarajan
Principal,
KIET School of Pharmacy


Prof. (Dr.) Anil K. Ahlawat
Director Academics,


Prof. (Dr.) Preeti Bajaj
Director General

KIET SCHOOL OF PHARMACY
TARGET BENCHMARK SUMMARY (2024-25 ODD SEMESTER)
M.PHARM 1st SEMESTER.

Subject	Subject Code	Proposed Internal % marks (out of 25)	EXTERNAL BENCHMARK AVG OF LAST 2 YEARS (FOR REFERENCE)		Proposed External Marks % marks (out of 75)
			2021-22	2022-23	
Modern Pharmaceutical Analytical Techniques	MPH 101T	60	67.71	49.51	59
Drug Delivery System	MPH 102T	62	72.38	50.22	61
Modern Pharmaceutics	MPH 103T	64	60	65.52	63
Regulatory Affairs	MPH 104 T	67	69.9	63.2	66
Modern Pharmaceutical Analytical Techniques	MPL 101T	66	60.53	69.87	65
Advanced Pharmacology-I	MPL 102T	72	77.87	63.43	71
Pharmacological and Toxicological Screening Methods-I	MPL103T	59	56.98	60.09	58
Cellular and Molecular Pharmacology	MPL 104T	77	78.58	74.13	76
Modern Pharmaceutical Analytical Techniques	MQA101T	64	71.41	55.22	63
Quality Management System	MQA102T	67	62.07	70.89	66
Quality Control and Quality Assurance	MQA103T	74	78.07	67.85	73
Product Development and Technology Transfer	MQA104T	64	61.78	64.33	63


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Sign Of HOD

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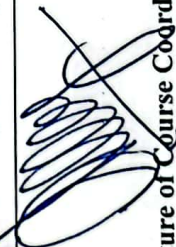
KIET School of Pharmacy

Program Name: M. Pharm Pharmaceutics
 Course Name: Modern Analytical Techniques
Course Outcomes

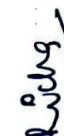
Academic Session: Odd 2024-25
 Course Code: MPH101T
 Year: 1st
 Semester: 1st
 Course Coordinator Name: Dr. Abhay Bhardwaj

After completion of the course, the student will be able to		Relevant POs/PSOs/COs	Revised Bloom's Level (BL)	Knowledge Category (KC)		
CO No.	Statement of Course Outcomes					
CO1	Apply the concepts and applications of UV, IR, Fluorimetry, Flame and AAS.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO2	Interpret the basics and applications of NMR.	PO-1, 2, 3, 4, 5	Evaluate	Factual & Conceptual		
CO3	Outline the theory, principle, instrumentation and illustrate the applications of Mass spectroscopy.	PO-1, 2, 3, 4, 5, 6	Analyze	Factual & Conceptual		
CO4	Acquire theory, principle, instrumentation and applications of chromatography and electrophoresis.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO5	Apply the theory, principle, instrumentation and applications of X-ray crystallography, Potentiometry, thermal techniques and Immunological assays.	PO-1, 2, 3, 4, 5, 6	Apply	Factual & Conceptual		
Programme Outcome (PO)						
CO No.	1	2	3	4	5	6
CO1	3	1	2	1	2	-
CO2	3	1	2	1	2	-
CO3	3	1	2	1	2	1
CO4	3	1	2	1	2	-
CO5	3	1	2	1	2	1
PO Target	3	1	2	1	2	1
Faculty Members Teaching the Course					Signature	
Dr. Abhay Bhardwaj						

Signature of Course Coordinator



Signature of Addl. HoD



Assoc./ Asst. Head DOC

Signature of HoD



Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: M. Pharm (Pharmaceutics)

Academic Session: Odd 2024-25 Year: 1st

Semester: I

Course Name: Drug Delivery System

Course Code: MPH102T

Course Coordinator Name: Prof. (Dr). N. G. Raghavendra Rao

Course Outcomes

CO No.	Statement of Course Outcomes	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Examine the concept, factors influencing & biological approaches for SR/CR formulation and customized drug delivery systems, bio-electronic medicines, 3D printing of Pharmaceuticals.	PO - 1, 2, 3, 4, 5	Apply	Conceptual, Procedural
CO2	Identify the principles & fundamentals of Rate Controlled Drug Delivery Systems.	PO - 1, 3, 4, 5	Analyze	Factual, Conceptual
CO3	Analyze the principles, concepts, and applications of Gastro-Retentive Drug Delivery Systems.	PO - 1, 3, 4, 5	Analyze	Factual, Conceptual
CO4	Analyze the Ocular Drug Delivery Systems.	PO - 1, 3, 4, 5	Analyze	Factual, Conceptual
CO5	Analyze the concept of Transdermal, Protein, Peptide, and Vaccine Delivery System.	PO - 1, 2, 3, 4, 5	Analyze	Factual, Conceptual

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	2	2	3	3	-
CO2	3	-	2	2	3	-
CO3	3	-	2	2	2	-
CO4	3	-	2	1	2	-
CO5	3	2	2	3	3	-
PO Target	3	2	2	2.2	2.6	-

Faculty Members Teaching the Course	Signature
Prof. (Dr). N. G. Raghavendra Rao	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs The laboratory, course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs The Project having 7 to 12 credits should have 6 to 10 number of COs


❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

Program Name: M. Pharm (Pharmaceutics) **Year:** 1st **Semester:** I
Course Name: Modern Pharmaceutics **Course Code:** MPH103T **Academic Session:** Odd 2024-25
Course Coordinator Name: Dr. Snigdha Bhardwaj

Course Outcomes

CO No.	Statement of Course Outcomes	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Explore the concept of preformulation, stability testing and theories of pharmaceutical dispersion.	POs: 1,3,4,5	Analyze	Factual & Conceptual
CO2	Acquire the knowledge of different optimization techniques in pharmaceutical formulation with applications.	POs: 1,2,3,4,5,6	Apply	Factual & Conceptual
CO3	Illustrate validation, ICH and WHO guidelines for calibration and validation of equipment's.	POs: 2,3,5,6	Apply	Conceptual & Procedural
CO4	Determine the objectives and policies of cGMP and industrial management.	POs: 2,3,5,6	Analyze	Conceptual & Procedural
CO5	Explain the fundamentals of compression and compaction and principle involved in consolidation parameters in pharmaceutical formulation.	POs: 1,3,4,5	Analyze	Factual & Conceptual

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	-	3	3	3	-
CO2	3	2	3	3	3	2
CO3	-	3	3	-	3	2
CO4	-	3	3	-	3	2
CO5	3	-	3	3	3	-
PO Target	3	2.67	3	3	3	2

Faculty Member Teaching the Course	Signature
Dr. Snigdha Bhardwaj	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines vol. Session 2021 – 22)

- ❖ The theory courses project having credits 3 to 6 should have 5 number of COs. The laboratory course mini project seminar industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs
- ❖ The statement of a CO must be formed considering a proper structure having mandatory, and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

Program Name: M. Pharm Pharmaceutics
 Course Name: Drug Regulatory Affairs
Course Outcomes

Academic Session: Odd 2024-25
 Course Code: MPH104T

Year: I Semester: I
 Course Coordinator Name: Anuj Pathak

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcomes			
CO1	Understand the concept of generic drug and their development,	PO-1,2,3,4,5,6	Understand	Factual, Conceptual
CO2	Analyze the requirement of different phases of clinical trials and submitting regulatory documents.	PO-1,2,3,4,5,6	Analyze	Factual, Conceptual, and Procedural
CO3	Apply the filing process of IND, NDA and ANDA.	PO-1,2,3,4,5,6	Apply	Factual, Conceptual, and Procedural
CO4	Analyze chemistry, manufacturing controls and their regulatory importance.	PO-1,2,3,4,5,6	Analyze	Factual, Conceptual, and Procedural
CO5	Apply the documentation requirements for regulatory bodies.	PO-1,2,3,4,5,6	Apply	Factual, Conceptual, and Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	2	1	1	1	1
CO2	3	1	2	1	2	1
CO3	3	1	2	1	2	2
CO4	3	1	2	2	2	1
CO5	3	1	1	2	1	1
PO Target	3	1.2	1.6	1.4	1.6	1.4
Faculty Members Teaching the Course						
Signature						
Anuj Pathak						

Anuj Pathak
 Signature of Course Coordinator

Rishi
 Assoc./ Asst. Head DOC

Anuj Pathak
 Signature of Addl. HoD

Anuj Pathak
 Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)
 ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory, course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

KIET School of Pharmacy

Program Name: M. Pharm (Pharmaceutics) **Year: 1st** **Semester: 1**
Course Name: Pharmaceutics Practical - I **Academic Session: Odd 2024-25** **Course Coordinator Name: Dr. Snigdha Bhardwaj**
Course Outcomes **Course Code: MPH105P**

CO No.	Statement of Course Outcomes		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
	Completion of the course, the student will be able to				
CO1	Analyze pharmacopoeial compounds and their formulations by UV-Vis spectrophotometer.		PO: 1,2,3,4,5	Analyze	Conceptual & Procedural
CO2	Assess the experiments based on different analytical techniques such as chromatography, photometry, and fluorimetry.		PO:1,2,4,5,6	Evaluate	Conceptual & Procedural
CO3	Perform the preformulation studies of solid dosage form and <i>in-vitro</i> evaluations of novel drug delivery systems along with marketed formulation.		PO: 1,2,3,4,5	Evaluate	Conceptual & Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	3	2	3	3	-
CO2	3	3	-	3	3	2
CO3	3	3	3	3	3	-
PO Target	3	3	2.5	3	3	2

Faculty Member Teaching the Course	Signature
Dr. Abhay Bhardwaj	
Dr. Snigdha Bhardwaj	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines vef. Session 2021 – 22)

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KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: M. Pharm Pharmacology **KIET School of Pharmacy**
Course Name: Modern Analytical Techniques **Academic Session:** Odd 2024-25 **Year:** 1st Semester: I
Course Code: MPL101T **Course Coordinator Name:** Dr. Smriti Sahu

Course Outcomes

After completion of the course, the students will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)		
CO No.	Statement of Course Outcomes					
CO1	Apply the concepts and applications of UV, IR, Fluorimetry, Flame and AAS.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO2	Interpret the basics and applications of NMR.	PO-1, 2, 3, 4, 5	Evaluate	Factual & Conceptual		
CO3	Outline the theory, principle, instrumentation and illustrate the applications of Mass spectroscopy.	PO-1, 2, 3, 4, 5, 6	Analyze	Factual & Conceptual		
CO4	Acquire theory, principle, instrumentation and applications of chromatography and electrophoresis.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO5	Apply the theory, principle, instrumentation and applications of X-ray crystallography, Potentiometry, thermal techniques and Immunological assays.	PO-1, 2, 3, 4, 5, 6	Apply	Factual & Conceptual		
Programme Outcome (PO)						
CO No.	1	2	3	4	5	6
CO1	3	1	2	1	2	-
CO2	3	1	2	1	2	-
CO3	3	1	2	1	2	1
CO4	3	1	2	1	2	-
CO5	3	1	2	1	2	1
PO Target	3	1	2	1	2	1
Faculty Members Teaching the Course		Signature				
Dr. Smriti Sahu		Smriti Sahu				

Signature of Course Coordinator

Smriti Sahu

Signature of Addl. HoD

Smriti Sahu

Signature of Addl. HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
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KJ Somaiya School of Pharmacy

Program Name: M. Pharm (Pharmacology)
Course Name: Advanced Pharmacology-I
Course Outcomes

Academic Session: Odd 2024-25
Year: 1st
Semester: I
Course Coordinator Name: Dr. Abhishek Kumar

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the basics of pharmacokinetics and pharmacodynamics	PO-1,3,4	Understand	Factual & Conceptual
CO2	Illustrate the pharmacology of drugs acting on peripheral nervous system	PO-1,3,4	Apply	Factual & Conceptual
CO3	Analyze the pharmacology of drugs acting on central nervous system Psychopharmacological disorders	PO-1,3,4	Analyze	Factual & Conceptual
CO4	Explore the pharmacology of drugs used for management of cardiovascular disorders	PO-1,3,4	Analyze	Factual & Conceptual
CO5	Evaluate the pharmacological and physiological roles of autacoids and drugs acting on their receptors	PO-1,3,4	Evaluate	Factual & Conceptual

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	1	-	3	2	-	-
CO2	1	-	3	3	-	-
CO3	1	-	3	3	-	-
CO4	1	-	3	3	-	-
CO5	1	-	3	3	-	-
PO Target	1	-	3	2.8	-	-

Faculty Member Teaching the Course	Signature
Dr. Abhishek Kumar	

	
Signature of Course Coordinator	Assoc./Asst. Head DOC


Signature of HoD

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CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the regulations and ethical requirements for the usage of experimental animals and good laboratory practices in maintenance and handling of experimental animals	PO-1,2,3,5,6	Understand	Factual & Conceptual
CO2	Examine the screening methods for the drugs used in treatment of CNS disorders	PO-1,3,4,5,6	Analyze	Conceptual & Procedural
CO3	Apply the Preclinical screening of new substances for the pharmacological activity for drugs acting on respiratory system, gastrointestinal system	PO-1,3,4,5,6	Apply	Conceptual & Procedural
CO4	Evaluate the Preclinical screening of new substances for the pharmacological activity on cardiovascular system, diabetes, cancer and liver	PO-1,3,4,5,6	Evaluate	Conceptual & Procedural
CO5	Analyze the screening methods for drugs affecting immune system and to correlate the preclinical data to humans.	PO-1,3,4,5,6	Analyze	Conceptual & Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1		1				
CO2		2				
CO3		2				
CO4		2				
CO5		2				
PO Target	2-33	1	2	1	3	1

Faculty Member Teaching the Course
 Dr. Roma Ghai

Roma Ghai

Signature of Course Coordinator

Roma Ghai

Roma Ghai

Assoc./ Asst. Head DOC

Roma Ghai

Signature of Addl. HoD

Roma Ghai

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

The theory courses project having credits 3 to 6 should have 5 number of COs. The laboratory course mini project seminar industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
 The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

KIET SCHOOL OF PHARMACY

Program Name: M. Pharm. Pharmacology
 Course Name: Cellular & Molecular Pharmacology
 Course Outcomes

Academic Session: Odd 2024-25
 Course Code: MPL104T

Year: I Semester: I
 Course Coordinator Name: Dr. Shardendu K Mishra

CO No.	Statement of Course Outcomes	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)		
CO1	Review the fundamental knowledge of the structure, and functions of cellular components and their interaction of these components with drugs.	PO-1,2,3,4,5,6	Understand	Factual & Conceptual		
CO2	Analyze the receptor signal transduction processes and molecular pathways affected by drugs.	PO-1,2,3,4,5,6	Analyze	Factual & Conceptual		
CO3	Explore the concept and applications of molecular biology techniques and biomarkers in the drug discovery process.	PO-1,2,3,4,5,6	Analyze	Conceptual & Procedural		
CO4	Apply the concepts and applications of pharmacogenomics and immunotherapeutics in drug discovery and development.	PO-1,2,3,4,5,6	Apply	Factual & Conceptual		
CO5	Demonstrate the cell culture techniques as applicable to molecular pharmacology.	PO-1,2,3,4,5,6	Apply	Conceptual & Procedural		
Programme Outcome (PO)						
CO No.	1	2	3	4	5	6
CO1	-	-	2	-	-	-
CO2	-	-	2	1	-	-
CO3	2	2	2	2	2	1
CO4	2	2	2	2	2	1
CO5	2	2	2	2	2	1
PO Target	2	2	2	1.75	2	1

Faculty Members Teaching the Course
 Dr. Shardendu K Mishra

Signature of Course Coordinator
 Signature of Addl. HoD
 Signature of HoD

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 * The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: M. Pharm Pharmacology
Course Name: Pharmacological Practicals – I
Course Outcomes

Academic Session: Odd 2024-25
Year: 1st
Semester: I
Course Coordinator Names: Dr. Roma Ghai

Course Code: MPL105P

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Evaluate the component containing formulations by various analytical techniques like spectroscopy, chromatography, fluorimetry and flame photometry.	PO1, PO3, PO4, PO5, PO6	Evaluate	Conceptual & Procedural
CO2	Illustrate the techniques of routes of drug administration, blood withdrawal techniques and anesthesia	PO1, PO3, PO5, PO6	Apply	Conceptual & Procedural
CO3	Evaluate the pharmacological activity of drugs acting on CNS, peripheral nerves, GIT, eyes, and kidneys.	PO1, PO2, PO3, PO4, PO5, PO6	Evaluate	Conceptual & Procedural

CO No.	Faculty Members Teaching the Course					
	1	2	3	4	5	6
CO1	3		3	2	1	2
CO2	1		1		2	1
CO3	2	1	2	2	1	1
PO Target	2	1	2	2	1.3	1.3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Roma Ghai		Dr. Smriti Sahu	

Signature of Course Coordinator

Assoc./ Asst. Head DOC


Signature of Addl. HoD

Signature of HoD


Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

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Course Outcomes

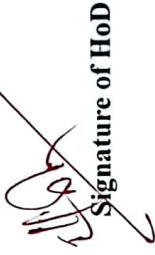
After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)		
CQ No.	Statement of Course Outcomes					
CO1	Apply the concepts and applications of UV, IR, Fluorimetry, Flame and AAS.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO2	Interpret the basics and applications of NMR.	PO-1, 2, 3, 4, 5	Evaluate	Factual & Conceptual		
CO3	Outline the theory, principle, instrumentation and illustrate the applications of Mass spectroscopy.	PO-1, 2, 3, 4, 5, 6	Analyze	Factual & Conceptual		
CO4	Acquire theory, principle, instrumentation and applications of chromatography and electrophoresis.	PO-1, 2, 3, 4, 5	Apply	Factual & Conceptual		
CO5	Apply the theory, principle, instrumentation and applications of X-ray crystallography, Potentiometry, thermal techniques and Immunological assays.	PO-1, 2, 3, 4, 5, 6	Apply	Factual & Conceptual		
Programme Outcome (PO)						
CO No.	1	2	3	4	5	6
CO1	3	1	2	1	2	-
CO2	3	1	2	1	2	-
CO3	3	1	2	1	2	1
CO4	3	1	2	1	2	-
CO5	3	1	2	1	2	1
PO Target	3	1	2	1	2	1
Faculty Members Teaching the Course		Signature				
Dr. K. Nagarajan						

Dr. K. Nagarajan


 Signature of Course Coordinator


 Assoc./ Asst. Head DOC


 Signature of Addl. HoD


 Signature of HoD

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcomes			
CO1	Understand concepts & objectives of Quality Management Systems.	PO-2, 3, 4, 5	Understand	Factual & Conceptual
CO2	Apply the basics of inspection models of Quality Management system viz. ISO 9001:2008, 9001:2015, ISO 14001:2004- ICH Q10, OSHAS guidelines, NABL, CFR-21 part 11, WHO-GMP.	PO-1, 2, 3, 4, 5, 6	Apply	Conceptual & Procedural
CO3	Validate the Six System Inspection model and its applications.	PO-1, 2, 3, 4, 5	Analyze	Conceptual & Procedural
CO4	Validate the ICH guidelines for stability testing of drug substances and drug products.	PO-1, 2, 3, 4	Analyze	Conceptual & Procedural
CO5	Audit for Quality Assurance, Engineering Departments and its maintenance.	PO-1, 2, 3, 4	Analyze	Conceptual & Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	-	1	3	1	2	-
CO2	3	3	2	2	1	1
CO3	2	2	2	2	1	-
CO4	3	2	3	3	-	-
CO5	3	2	3	2	-	-
PO Target	2.75	2	2.6	2	1.33	1

Faculty Members Teaching the Course	Signature
Dr. Smriti Sahu	<i>Smriti Sahu</i>

Smriti Sahu

Signature of Course Coordinator

Rina

Assoc./ Asst. Head DOC

Smriti Sahu

Signature of Addtl. HoD

Smriti Sahu

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory, and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

KIET School of Pharmacy

Program Name: M. Pharm. Pharm. Quality Assurance
Course Name: Quality Control and Quality Assurance
Course Outcomes

Academic Session: Odd 2024-25
Course Code: MQA103T

Year: 1st
Coordinator Name: Dr. Lakshmi

CO No.	Statement of Course Outcomes	Relevant POs/ PSOs/ APOs:	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the concepts of Quality Control, Quality Assurance and GLP Pharmaceutical Industry.	PO-1,2,3,4,5	Understand	Factual & Conceptual
CO2	Apply the principles of cGMP in pharmaceutical manufacturing.	PO-1,2,3,4,5	Apply	Factual & Conceptual
CO3	Analyze raw materials, finished products, and packaging materials utilizing in process quality control (IPQC) and finished product Quality control testing.	PO-1,2,3,4,5	Analyze	Factual & Conceptual
CO4	Illustrate the concept and submission procedure of various types of documents used in Pharmaceutical Industry.	PO-1,2,3,4	Apply	Factual & Conceptual
CO5	Examine various manufacturing operations and controls in pharmaceutical manufacturing	PO-6	Analyze	Factual & Conceptual

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	1	1	1	3	-
CO2	3	1	2	2	1	-
CO3	3	1	3	3	-	-
CO4	3	3	2	2	-	-
CO5	3	1	2	3	-	1
PO Target	3	1.4	2	2.33	2	1

Faculty Members Teaching the Course	Signature
1. Dr. Lakshmi	<i>Lakshmi</i>

Lakshmi

Signature of Course Coordinator

Rishi

Assoc./ Asst. Head DOC

Lakshmi

Signature of Addl. HoD

Lakshmi

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: M. Pharm (QA)

Academic Session: Odd 2024-25

Year: Ist

Semester: I

Course Name: Product Development and Technology Transfer

Course Code: MQA104T

Course Coordinator Name: Ms. Surbhi Kamboj

Course Outcomes

CO No.	Statement of Course Outcomes	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Apply drug development principles to regulatory processes like IND, NDA, ANDA, sNDA, SUPAC, BACPC, and post-marketing surveillance.	PO-1,2,3,4,5	Apply	Conceptual, Procedural
CO2	Explore and analyze the properties of preformulation studies.	PO-1,2,3,4,5	Analyze	Conceptual, Procedural
CO3	Evaluate and optimize pilot plant scale-up, manufacturing processes, and quality control strategies for dosage forms.	PO-1,2,3,4,5,6	Evaluate	Conceptual, Procedural
CO4	Evaluate packaging materials, systems, and quality control for various dosage forms and modern pharmaceutical needs	PO-1,2,3,4,5	Evaluate	Conceptual, Procedural
CO5	Apply technology transfer processes from R&D to production, including optimization, modeling, and documentation.	PO-1,2,3,4,5,6	Apply	Conceptual, Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	3	2	3	2	
CO2	3	3	3	3	2	
CO3	2	3	3	2	2	2
CO4	3	2	2	2	2	2
CO5	2	3	3	2	3	2
PO Target	2.6	2.8	2.6	2.4	2.2	2.0

Faculty Member Teaching the Course	Signature
Ms. Surbhi Kamboj	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines w.e.f. Session 2021 - 22)

The theory courses should have 3 to 6 credits, laboratory courses should have 3 to 6 credits, mini project/ seminar/ industrial training should have 3 credits, and the project should have 6 to 10 credits. The Project having 7 to 12 credits should have 6 to 10 number of COs.

The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIE Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: M. Pharm (QA)

Academic Session: Odd 2024-25

Year: 1st

Semester: I
Course Coordinator Name: Ms. Surbhi Kamboj

Course Name: Quality Assurance Practical-I

Course Code: MQA105P

Course Outcomes

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Explore and analyze the preformulation studies of various dosage forms.	PO-1,2,3,4,6	Apply	Conceptual, Procedural
CO2	Assess the quality control test on the analytical instrument.	PO-1,2,3,4,5,6	Evaluate	Conceptual, Procedural
CO3	Generalize the case studies on TQM, OOS, OOT, CAPA	PO-1,2,3,4,5,6	Create	Conceptual, Procedural


CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	3	3	3		2
CO2	3		3	2	3	2
CO3	2	2	2	3	3	2
PO Target	2.66	2.5	2.66	2.66	3.0	2.0

Faculty Member Teaching the Course	Signature
Ms. Surbhi Kamboj	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses should have 5 number of COs. The laboratory course should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy




Program Name: M. Pharm (All Specializations)
Course Name: Research Work
Course Outcomes

Academic Session: Odd 2024-25
Course Code: MRM304P

Year: II
Semester: IV
Course Coordinator Name: Dr. Shardendu K. Mishra

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Analyze the ability to design, conduct, and analyze research projects applying advanced methodologies relevant to their specialization.	PO-1,2,3,4,5,6	Analyze	Conceptual & Procedural
CO2	Develop critical thinking and analytical skills by assessing existing literature, identifying gaps in knowledge, and proposing innovative solutions to pharmaceutical and therapeutic challenges.	PO-1,2,3,4,5,6	Create	Conceptual & Procedural
CO3	Evaluate the research findings of the project and present them in their dissertation report and PowerPoint presentation.	PO-1,2,3,4,5,6	Evaluate	Conceptual & Procedural

CO No.	Programme Outcome (PO)					
	1	2	3	4	5	6
CO1	3	2	3	3	3	2
CO2	3	2	3	3	3	2
CO3	3	3	3	3	3	2
PO Target	3	2.33	3	3	3	2

Faculty Member Teaching the Course	Signature
Dr. Shardendu K. Mishra	
Mr. Balwan Singh	
Ms. Surbhi Kamboj	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines w/e, Session 2021 – 22)

- ❖ The theory courses project having credits 3 to 6 should have 3 number of COs. The laboratory course mini project seminar industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are: Action & Knowledge and optional parts are: Condition and Criteria